

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE SPECIFICATION  
STREAMBANK AND SHORELINE PROTECTION – POST AND WIRE  
REVTMENT  
CODE 580F**

**1. MATERIALS**

Materials, except for cable clamps and other fittings, may be used materials in good condition free of structural damage or deformation as determined by the engineer. Used galvanized materials, as described below, shall be free of rust and damaged galvanized surfaces as determined by the engineer.

- a. Woven wire – Shall be one of two types:
  - (1) Galvanized Industrial Type 2-inch by 4-inch “V” mesh, 12 ½ gage 2-ply horizontal wires with 14 gage diagonal wires. Splicing ties shall be a minimum 10 gage galvanized soft iron wire.
  - (2) Galvanized, Type 1, 2-inch mesh, 9-gage “Chain Link”, meeting the requirements of Federal Specification RR-F-191 or RR-F-221. Tie and guy wires shall be 12-gage galvanized steel wire meeting the requirements of RR-F-221.
- b. Posts – Shall be one of three types:
  - (1) Black steel pipe, boiler tubing, drill stem, or equal as determined by the engineer and of the diameter, gage and/or thickness as shown on the drawings.
  - (2) Straight steel railroad rails of the weight shown on the drawings.
  - (3) Timber posts of cedar, or other wood treated with chromated copper arsenate mixture, in accordance with Federal Specification TT-W-550, of the diameter shown on the drawings.
- c. Cable – Shall be minimum ½-inch diameter galvanized steel wire rope. Cable clamps and other fittings shall be of standard manufacture and galvanized.
- d. Tie back anchors – shall be of the

materials described above except that deadmen may be concrete with a minimum 28-day compressive strength of 2500 psi.

**2. SITE PREPARATION**

- a. The necessary excavation shall be done to the limits shown on the drawings as required for placing and fastening the woven wire fabric properly to the posts at least 2-feet below the invert grade of the stream at the toe of the bank unless greater depths are shown on the drawings or staked in the field by the engineer.
- b. All brush, debris, or other obstacles in the stream within a distance of 4 times the height of the fence from the outside face of the finished fencing shall be removed to prevent concentrated flows along the front face of the fence unless otherwise shown on the drawings or staked in the field by the engineer.

**3. INSTALLATION**

- a. The layout of the revetment shall approximate the natural sinuosity, curvature, and bed width of the stream as determined from evaluation of the stream, upstream and downstream of the project area, and as further determined and documented by the engineer. All work shall be constructed to the lines and grades shown on the drawings unless otherwise staked in the field by the engineer.
- b. The beginning and ending portions of the revetment shall extend well upstream and downstream of the bank damage areas and shall provide smooth tangential transitions to the natural upstream and downstream banks as evaluated by the engineer and as shown on the drawings. In all cases, tie back anchors, located well into the bank areas and out of the streams flow area, shall be provided at the

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upstream and downstream ends of the revetment and at selected intermittent locations as determined by the engineer and as shown on the drawings.

- c. Cross fencing, between the revetment fencing and the natural bank to reduce velocities, trap sediment and encourage natural vegetation, shall be installed at the locations determined by the engineer and as shown on the drawings. Materials for cross fencing shall be of the same materials used for the revetment fencing.
- d. All posts shall be embedded to a depth of at least 2-feet below the probable depth of scour during stream flow as determined by the engineer and as shown on the drawings. In any case, the minimum depth of embedment below the existing invert grade of the stream at the toe of the bank shall be 1/3 the height of the post, 4-feet, or as determined by the engineers analyses, whichever is greatest and as shown on the drawings.
- e. Maximum spacing of post shall be as shown on the drawings.
- f. The woven wire on the revetment fencing shall be installed and tied to a minimum depth of 2-feet below the existing invert of the stream unless otherwise shown on the drawings or staked in the field by the engineer.

### 4. MEASUREMENT AND PAYMENT

Measurement for payment will be to the nearest total lineal footage of revetment fencing and cross fencing. Payment will be made at the contract unit price and will include compensation for all woven wire fencing, posts, cables, clamps, connectors, excavation and backfill, and other items necessary and incidental to the completion of the work.